

ABSTRACT OF THE DISCLOSURE

An optical system and method of measuring a strain on a surface of a band of a sheet of a material. A single line, or an area having a boundary line, is marked on the band before deformation. The line traverses a width of the band at angle. The band is deformed and an equivalent two-dimensional image of the line after deformation is obtained. The line before deformation is compared with the two-dimensional equivalent image of the line after deformation, and the strain on the surface of the band after deformation is determined.